

Seat No.	
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ENT-56

Total No. of Pages : 16

M.Sc. Botany Entrance Examianation 2026
Sub. Code: 58714

Day and Date : Tuesday, 21-07-2026
Time : 10.30 p.m. to 12.00 p.m.

Total Marks : 100

Instructions

- 1) All questions are compulsory.
- 2) Each question carries 1 mark.
- 3) Answers should be marked in the given OMR sheet by darkening the appropriate option.
- 4) Follow the instructions given on OMR Sheet.
- 5) Rough work shall be done on the sheet provided at the end of question paper.

1. Which organism is prokaryotic?
 - a) Amoeba
 - b) Bacteria
 - c) Yeast
 - d) Spirogyra
2. Cell wall in plants is mainly mad up of
 - a) Protein
 - b) Lipid
 - c) Cellulose
 - d) Starch
3. The control centre of cell is
 - a) Mitochondria
 - b) Nucleus
 - c) Ribosome
 - d) Vacuole
4. Photosynthesis occurs in
 - a) Mitochondria
 - b) Chloroplast
 - c) Cytoplasm
 - d) Nucleus
5. Virus contains
 - a) Only DNA
 - b) Only RNA
 - c) DNA or RNA
 - d) Protein only

6. Yeast reproduces by
- a) Fragmentation
 - b) Budding
 - c) Binary fission
 - d) Conjugation
7. The smallest unit of life is
- a) Tissue
 - b) Cell
 - c) Organ
 - d) Organism
8. Bryophytes are called as
- a) Seed plants
 - b) Flowering plants
 - c) Vascular plants
 - d) Amphibians of plant kingdom
9. Pteridophytes reproduce by.....
- a) Seeds
 - b) Spores
 - c) Budding
 - d) Cutting
10. Which of the following is a gymnosperm?
- a) Agaricus
 - b) Mangifera
 - c) Pinus
 - d) Spirogyra
11. Study of classification of plants is called
- a) Ecology
 - b) Taxonomy
 - c) Physiology
 - d) Genetics
12. Potato is a modified
- a) Root
 - b) Stem
 - c) Leaf
 - d) Flower
13. Simple tissue includes
- a) Xylem
 - b) Phloem
 - c) Parenchyma
 - d) Cambium

14. Law of dominance was given by
 - a) Darwin
 - b) Mendel
 - c) Watson
 - d) Lamarck
15. DNA is located in
 - a) Cytoplasm
 - b) Nucleus
 - c) Ribosome
 - d) Vacuole
16. tRNA helps in
 - a) Translation
 - b) Replication
 - c) Transcription
 - d) Mutation
17. Ecosystem consists of
 - a) Plants only
 - b) Animals only
 - c) Living and non-living components
 - d) Soil only
18. Clove is a
 - a) Fruit
 - b) Spice
 - c) Fiber
 - d) Timber
19. TCA cycle occurs in
 - a) Mitochondria
 - b) Cytoplasm
 - c) Nucleus
 - d) Chloroplast
20. Photosynthetic pigment is
 - a) Hemoglobin
 - b) Chlorophyll
 - c) Myoglobin
 - d) Keratin
21. Ovary develops into
 - a) Seed
 - b) Fruit
 - c) Flower
 - d) Embryo

22. Ovule develops into
- a) Fruit
 - b) Pollen
 - c) Flower
 - d) Seed
23. Pollination is transfer of to the stigma of flower.
- a) Ovule
 - b) Pollen
 - c) Seed
 - d) Embryo
24. Self-pollination occurs in
- a) Same flower
 - b) Different plant
 - c) Different species
 - d) Different family
25. Cross pollination increases
- a) Uniformity
 - b) Variation
 - c) Sterility
 - d) Mutation
26. Double fertilisation is the characteristic feature of
- a) Algae
 - b) Angiosperms
 - c) Bryophytes
 - d) Fungi
27. Monosporic embryo sac contains
- a) 2 cells
 - b) 4 cells
 - c) 7 cells
 - d) 10 cells
28. Antipodal cells are
- a) Male cells
 - b) Female accessory cells
 - c) Gametes
 - d) Zygotes
29. Syngamy is fusion of 2 haploid to form diploid zygote
- a) Nuclei
 - b) Cells
 - c) Gametes
 - d) Tissues

30. Endosperm provides to the developing embryo
- a) Protection
 - b) Nutrition
 - c) Reproduction
 - d) Support
31. The main product of photosynthesis is
- a) Oxygen
 - b) Glucose
 - c) Water
 - d) Nitrogen
32. Osmosis is movement of water through
- a) Cell wall
 - b) Semi-permeable membrane
 - c) Xylem
 - d) Phloem
33. Transpiration cools the plant by of water
- a) Evaporation
 - b) Heating
 - c) Absorption
 - d) Diffusion
34. Stomata are present in of water
- a) Roots
 - b) Leaves
 - c) Tissue
 - d) Flower
35. Active transport requires
- a) Energy
 - b) Water
 - c) Pressure
 - d) Heat
36.is an example of macronutrient.
- a) Iron
 - b) Nitrogen
 - c) Zinc
 - d) Copper
37. is an example of micronutrient.
- a) Nitrogen
 - b) Phosphorus
 - c) Zinc
 - d) Potassium

38. Drought stress affects
- a) Water availability
 - b) Oxygen level
 - c) Light quality
 - d) Soil pH
39. Heat stress causes
- a) Enzyme denaturation
 - b) Growth increase
 - c) Water uptake
 - d) Photosynthesis increase
40. Plants respond to stress by
- a) Growth
 - b) Adaptation
 - c) Death
 - d) Reproduction
41. ABA hormone induces in plants
- a) Growth
 - b) Stomatal closure
 - c) Flowering
 - d) Germination
42. The green pigment in plants is
- a) Carotene
 - b) Xanthophyll
 - c) Chlorophyll
 - d) Anthocyanin
43. In vitro means
- a) In soil
 - b) In field
 - c) In plant
 - d) In lab
44. Culture medium must be
- a) Contaminated
 - b) Sterile
 - c) Dry
 - d) Acidic
45. Callus is tissue
- a) Undifferentiated
 - b) Differentiated
 - c) Xylem
 - d) Mechanical

46. Totipotency is ability of a cell to
- a) Divide a plant
 - b) Develop new plant
 - c) Grow the plant
 - d) Reproduce the plant.
47. Somaclonal variation occurs in
- a) Seeds
 - b) Roots
 - c) Tissue culture
 - d) Leaves
48. Marker genes help in of plants
- a) Growth
 - b) Identification
 - c) Respiration
 - d) Transport
49. Transgenic plants contain
- a) Native DNA
 - b) Foreign DNA
 - c) RNA
 - d) Protein
50. PCR amplifies
- a) Protein
 - b) Lipid
 - c) DNA
 - d) Sugar
51. Gel electrophoresis is used to separate molecules
- a) Starch
 - b) DNA
 - c) Lipids
 - d) Sugars
52. Cloning produces of the DNA
- a) Identical copies
 - b) Variations
 - c) Hybrids
 - d) Mutants
53. The basic unit used in plant tissue culture is
- a) Organ
 - b) Cell
 - c) Tissue
 - d) System

54. A mass of undifferentiated cells in tissue culture is known as

- a) Embryo
- b) Callus
- c) Shoot
- d) Root

55. Genetic Engineering involves

- a) Study of cells
- b) Transfer of genes from one organism to another
- c) Study of tissues
- d) Cultivation of plants

56. Plants produced through tissue culture are called

- a) Hybrids
- b) Clones
- c) Mutants
- d) Varieties

57. The sterile condition in tissue culture is maintained to prevent

- a) Growth
- b) Differentiation
- c) Contamination
- d) Respiration

58. Fruit ripening is controlled by

- a) Ethylene
- b) Auxin
- c) Cytokinin
- d) ABA

59. Compost is

- a) Chemical fertilizer
- b) Herbicide
- c) Pesticide
- d) Organic manure

60. Pruning fruit plants help in

- a) Reducing growth
- b) Improving yield
- c) Killing plant
- d) Drying

61. Nursery is for
- a) Harvesting
 - b) Storage
 - c) Raising plants
 - d) Transport
62. Grafting joins
- a) Root and leaf
 - b) Two plants
 - c) Stem and root
 - d) Leaf and flower
63. The cultivation of vegetables is called
- a) Pomology
 - b) Floriculture
 - c) Olericulture
 - d) Silviculture
64. Mango is an example of a
- a) Vegetable crop
 - b) Fruit crop
 - c) Oilseed crop
 - d) Fiber crop
65. Propagation through seeds is called
- a) Vegetative propagation
 - b) Asexual propagation
 - c) Sexual propagation
 - d) Clonal propagation
66. Kitchen gardening mainly involves growing
- a) Cash crops
 - b) Vegetables and fruits for home use
 - c) Timber trees
 - d) Medicinal plants only
67. Which of the following is a root vegetable?
- a) Tomato
 - b) Brinjal
 - c) Carrot
 - d) Cabbage

68. Coconut is classified as a
- a) Vegetable
 - b) Fruit
 - c) Flower
 - d) Root
69. The process of removing unwanted branches is called
- a) Irrigation
 - b) Pruning
 - c) Mulching
 - d) Weeding
70. Grafting is commonly used in
- a) Rice
 - b) Wheat
 - c) Mango
 - d) Maize
71. Rose is mainly grown for
- a) Fruit
 - b) Timber
 - c) Ornamentation
 - d) Oilseed
72. The cultivation of fruits is known as
- a) Olericulture
 - b) Pomoculture
 - c) Floriculture
 - d) Arboriculture
73. Protein digestion gives
- a) Glucose
 - b) Amino acids
 - c) Fatty acids
 - d) Nucleotides
74. Enzymes are
- a) Carbohydrates
 - b) Proteins
 - c) Lipids
 - d) Vitamins
75. ATP is
- a) Energy molecule
 - b) Protein
 - c) Lipid
 - d) Sugar

76. pH measures of the solution

- | | |
|----------------|------------|
| a) Temperature | b) Acidity |
| c) Pressure | d) Light |

77. Field study includes

- | | |
|-------------|------------|
| a) Lab work | b) Reading |
| c) Writing | d) Survey |

78. Herbarium stores

- | | |
|----------|--------------------------|
| a) Seeds | b) Dried plant specimens |
| c) Soil | d) Water |

79. Conservation means

- | | |
|----------------|---------------|
| a) Destruction | b) Protection |
| c) Use | d) Trade |

80. National parks are

- | | |
|--------------------|------------|
| a) Protected areas | b) Cities |
| c) Farms | d) Gardens |

81. Biodiversity means in a particular area

- | | |
|--------------------|----------------|
| a) Same species | b) Soil types |
| c) Variety of life | d) Water types |

82. Endangered species are

- | | |
|-------------|----------------|
| a) Safe | b) At risk |
| c) Abundant |d) Common |

83. Which of the following is an example of biological data?

- | | |
|-------------------|-------------------|
| a) Temperature | b) DNA sequence |
| c) Soil particles | d) Water droplets |

84. Internet helps in

- a) Information access
- b) Growth of plant
- c) Yield of the crop
- d) Water storage

85. Graph represents

- a) Text
- b) Data visualisation
- c) Numbers
- d) Words

86. Mode is

- a) Average
- b) Range
- c) Middle value
- d) Most frequent value

87. Standard deviation shows

- a) Mean
- b) Variation
- c) Sum
- d) Count

88. Hypothesis is of the research work to be done

- a) Result
- b) Data
- c) Conclusion
- d) Assumption

89. Experiment tests the

- a) Theory
- b) Hypothesis
- c) Data
- d) Result

90. Observation is about

- a) Recording facts
- b) Guessing
- c) Theory
- d) Law

91. Conclusion is

- a) Beginning
- b) Final result
- c) Method
- d) Data

92. Research aims at
- a) Ignorance
 - b) Error
 - c) Confusion
 - d) Knowledge
93. The shape of DNA is
- a) Circular
 - b) Single helix
 - c) Double helix
 - d) Linear
94. Which nitrogenous base is present in DNA but not in RNA?
- a) Adenine
 - b) Cytosine
 - c) Thymine
 - d) Guanine
95. The enzyme involved in DNA replication is
- a) RNA polymerase
 - b) DNA polymerase
 - c) Ligase
 - d) Amylase
96. The two strands of DNA are held together by
- a) Peptide bonds
 - b) Hydrogen bonds
 - c) Ionic bonds
 - d) Covalent bonds
97. Which of the following is a method of vegetative propagation?
- a) Seed sowing
 - b) Cutting
 - c) Pollination
 - d) Fertilization
98. The DNA molecule is described as antiparallel because
- a) Both strands run in the same direction
 - b) Both strands run in opposite directions
 - c) DNA is circular
 - d) DNA is single stranded

99. Transpiration mainly occurs through

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|------------|------------|
| a) Roots | b) Stem |
| c) Stomata | d) Flowers |

100. The process of intake of water by roots is called

- | | |
|------------------|---------------|
| a) Translocation | b) Absorption |
| c) Respiration | d) Diffusion |

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- Rough Work -

- Rough Work -